

New Jersey Department of Transportation

Project Delivery Process

Program Management Office

November, 2010

New Jersey Department of Transportation Project Delivery Process

	Problem Screening	Concept Development	Preliminary Engineering	Final Design	Construction
Funding	Planning Funds	Planning Funds	Preliminary Engineering Authorization	Final Design Authorization ROW/Utility Authorizations	Construction Authorization
Key Tasks	Conduct Tier 1 Screening Subject Matter Expert Review Check NJDOT Management Systems Prioritize Problem Statements Conduct Tier 2 Screening Validate Problem Recommend Preliminary Project Scope CPC Approval and Assignment	Conduct Data Collection Evaluate Deficiencies and Identify Fatal Flaws Evaluate Planning Alternatives Coordinate with Stakeholders Complete Environmental Screening Assess Right of Way (ROW) and Access Impacts Determine Preliminary Preferred Alternative (PPA) Identify Substandard Design Elements Determine Environmental Document Prepare Construction Cost Estimate Select Designer	Coordinate with Stakeholders Conduct Environmental Analysis for PPA Initiate Roadway Engineering Initiate Structural Engineering Initiate ROW and Access Initiate Utility Engineering Prepare Final Design and Construction Cost Estimates Manage Project Contracts	Manage Project Communications Complete Roadway Engineering Complete Structural Engineering Complete ROW and Access Complete Utility Engineering Complete Environmental Process Prepare Final Design Submission Certify Construction Contract Documents Manage Project Contracts	Advertise for Bids Award Project Conduct Construction Startup Conduct Mobilization Manage Construction Changes Conduct Construction Operations Complete Construction Closeout Project
Public Involvement	Obtain MPO Approval and Public Input	Execute Public Involvement Action Plan	Execute Public Involvement Action Plan	Execute Public Involvement Action Plan	Keep Public Informed Maintain Community Support
Key Products	Problem Statement Validation Tier 1 Documentation Tier 2 Screening Report Charter Proposed Project Assignment	Design Communications Report Concept Development Report: Purpose and Need Statement Preliminary Preferred Alternative Environmental Document Classification Preliminary Engineering Scope Statement	Design Communications Report Preliminary Engineering Report: Approved Environmental Document Approved Design Exception Report Cost Estimates (Final Design & Construction) Approved Project Plan Final Design Scope Statement	Design Communications Report Environmental Reevaluations and Permits Access Permits Acquisition of ROW Construction Contract Documents Supporting Agreements	Design Communications Report Completed Project As-Built Closeout Documentation
	Division of Capital Investment Strategies & Division of Project Development	Division of Project Development	Division of Project Development	Division of Project Management	Division of Project Management and Division of Construction Services and Materials or Operations

WHY?

- *Minimize Change*
 - *Scope*
 - *Schedule*
 - *Cost*

- *Improve Quality*
 - *Quality Management Plan*
 - *Interactive Communications*
 - *Design Communications Report*
 - *Scope Statements*

- *Improve Control*
 - *Accountability*
 - *Consistency*
 - *Management Tools*

Implementation Plan

- *Stage 1 (November 29, 2010)*
 - *Problem Screening*
 - *Concept Development*
 - *Quality Management*
 - *Scope Management*

Implementation Plan

- *Stage 2 (January 2011)*
 - *Preliminary Engineering*
- *Stage 3 (February 2011)*
 - *Final Design*
 - *Construction*
 - *Website Redesign*

Major Changes

- *Preliminary Preferred Alternative in Concept Development*
- *NEPA Class Identified in Concept Development*
- *Environmental Document Approved in Preliminary Engineering*
- *Design Exception Report Approved in Preliminary Engineering*
- *Designer Selected in Concept Development for Preliminary Engineering, Final Design and Construction*

Stage 1 and Stage 2 Overview

Problem Screening

(Some process development has occurred in this phase – the primary process improvement project is scheduled for 2011)

Problem Screening Objectives

- *Screening Consistent with Statewide Capital Investment Strategy*

<http://www.state.nj.us/transportation/capital/cis>

- *Formal Authorization of Work*
 - *Capital Program Committee Approval*

- *Control of Management Systems*

- *Safety*
- *Congestion*
- *Bridge*
- *Maintenance*
- *Drainage*

Problem Screening Products

- *Tier 1 Screening Documentation*
 - *Problem Statement Assessment*
- *Tier 2 Screening Report*
 - *Verify the Magnitude of the Problem*
 - *Preliminary Scope of Work Recommendation*
- *Charter*
 - *Justification and Objectives*

Problem Screening Roles & Responsibilities

Capital Investment Strategies

- *Management Systems' Coordinator*
- *Validates Problem Statement*
- *Performs Tier 1 Screening*
- *Prepares Tier 1 Screening Documentation*

Problem Screening Roles & Responsibilities

Lead Engineer (DPD)

- *Performs Tier 2 Screening*
- *Prepares Tier 2 Screening Report*
- *Provides Charter Concurrence*
- *Obtains Capital Program Committee Approval (Tier 2)*

Problem Screening Roles & Responsibilities

Subject Matter Experts

*Assist Capital Investment
Strategies and Lead Engineer
with Tier 1 and 2 Screenings*

Concept Development

Concept Development Objectives

- *Identify and Analyze Reasonable Alternatives*
- *Select a Preliminary Preferred Alternative*
- *Procure a Designer for Future Phases of Work*
 - *NJDOT or Consultant Designer*
 - *Preliminary Engineering, Final Design & Construction*

Concept Development Products

- *Purpose and Need Statement*
 - *Defines the Problem*
 - *Describes Issues Requiring Resolution*
- *CD Scope Statement*
 - *Developed from Template*
 - *Based on Work Breakdown Structure*
 - *Used in Developing Schedule and Designer Fee Proposal*

Concept Development Products

- *CD Schedule*
 - *Using Network Diagram, Activity Descriptions*
- *Public Involvement Action Plan*
 - *Strategy for Reaching Community Consensus*

Concept Development Products

- *Preliminary Preferred Alternative*
- *Design Communications Report*
 - *Design Decisions via Interactive Communications*

Concept Development Products

- *Environmental Screening Report*
 - *Identifies Environmental Concerns, Issues and Constraints*
- *CD Quality Certification*
 - *Designer Quality Management*

Concept Development Products

- *CD Report*
 - *Compilation of all Findings*
- *Preliminary Engineering (PE) Scope Statement*

Concept Development Products

- *Project Management Plan*
 - *Approach to Executing and Controlling the Project*
- *PE Schedule*
 - *Network Diagram*
 - *Activity Descriptions*
 - *PE Scope Statement*

Concept Development Products

- *PE Budget*
 - *Based on PE Schedule*
- *Consultant Agreement*

Concept Development Roles & Responsibilities

Designer

- *Prepares Purpose and Need Statement*
- *Develops Preliminary Preferred Alternative*
- *Prepares Design Communications Report*
- *Prepares Environmental Screening Report*
- *Prepares CD Quality Certification*
- *Prepares CD Report*
- *Prepares PE Scope Statement*

Concept Development Roles & Responsibilities

Lead Engineer

- *Develops CD Scope Statement*
- *Executes CD Task Order*
- *Creates CD Schedule*
- *Prepares CD Public Involvement Action Plan*
- *Presents Preliminary Preferred Alternative to Capital Program Committee*

Concept Development Roles & Responsibilities

Lead Engineer (continued)

- *Approves all Design Communications Report Entries*
- *Prepares PE Public Involvement Action Plan*
- *Develops PE Project Management Plan*
- *Develops PE Schedule*
- *Develops PE Budget*
- *Procures Designer for PE*
- *Closes out CD*

Concept Development Roles & Responsibilities

Subject Matter Experts

- *Required and Empowered to Make Decisions in Interactive Communications*
- *Required and Empowered to Make Decisions in Scope Team and Core Group Meetings*
- *Reviews CD Scope Statement*
- *Concurs/Signs PE Scope Statement*

Concept Development Roles & Responsibilities

Project Manager (DPM)

- *Participates in Interactive Communications*
- *Participates in Scope Team and Core Group Meetings*
- *Reviews Draft CD Report*
- *Participates on Technical Evaluation Committee*

Preliminary Engineering

Preliminary Engineering Objective

- *Further Refine the Preliminary Preferred Alternative to a Level of Detail Necessary to Secure Approval of the Environmental Document and Design Exception Report*

Preliminary Engineering Products

- *Design Communications Report*
- *Environmental Document*
- *Design Exception Report*
- *Project Plan*
- *Project Management Plan*
- *PE Quality Certification*
- *PE Report*
- *Final Design Scope Statement*

Preliminary Engineering Roles & Responsibilities

Designer

- *Prepares Design Communications Report*
- *Prepares Environmental Assessment and Draft Environmental Impact Statement*
- *Prepares Design Exception Report*
- *Prepares Project Plan*
- *Completes PE Quality Certification*
- *Prepares PE Report*
- *Prepares FD Scope Statement*

Preliminary Engineering Roles & Responsibilities

Lead Engineer (DPD)

- *Approves all Design Communications Report Entries*
- *Updates Project Management Plan*
- *Presents Project to Capital Program Screening Committee*
- *Recommends Designer for FD*
- *Closes out PE*

Preliminary Engineering Roles & Responsibilities

Subject Matter Experts

- *Prepares Categorical Exclusion Document*
- *Required and Empowered to Make Decisions in Interactive Communications*
- *Reviews PE Scope Statement*
- *Provides Comments on Project Plan*
- *Provides Comments on PE Report*
- *Concurs/Signs FD Scope Statement*

Preliminary Engineering Roles & Responsibilities

Project Manager (DPM)

- *Participates in Interactive Communications*
- *Accepts Project for FD*
- *Concurs on Designer for FD*



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